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Worldwide Report

NUCLEAR DEVELOPMENT AND PROLIFERATION

No. 59

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ERRATUM: In JPRS 76083, 21 July 1980, No. 53 of this series, in the article entitled "Nuclear Energy Programs in CEMA Countries" which appears on pp 12-14, the nuclear reactor model numbers should read VVER-440 (or 1000) instead of WWER-440 (or 1000) as published.

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EURODIF URANIUM DELIVERED TO JAPAN

Paris LE MONDE in French 17 Jul 80 p 27

[Text] Japan has received its first 5 tons of enriched uranium produced at the EURODIF [European Diffusion Agency] uranium enrichment plant in Tricastin.

Japan is the first foreign country to receive enriched uranium for its nuclear plants from EURODIF. The next foreign clients to be served will be Belgium, Spain and Italy.

The enriching of uranium involves increasing the concentration of uranium 235 (the only fissionable form) in the uranium, to 3 percent. It only contains 0.7 percent in the natural state. The level of uranium enrichment in the nuclear fuel at plants varies between about 2.5 and 3.5 percent. It is measured in separative work units (UTS). About 120,000 UTS per year are needed to guarantee the functioning of a one million kilowatt reactor, representing 25 to 30 tons of enriched uranium. In 1980, one million UTS will be provided to Japan, EURODIF explains. It was on 9 April 1979 that the first tons of enriched uranium were delivered to the EDF [French Electric Power Company], which will gradually become the main client of the company.

The total capacity of EURODIF, when its four plants are all functioning, will be 10.8 million UTS. The third unit, at which the majority of the units are already in operation, should be in full service by about 15 August, a little ahead of the scheduled date.

5157
CSO: 5100

INDIA

BRIEFS

NARORA ATOMIC POWER STATION-- An atomic power station is being set up at Narora in Uttar Pradesh after considering the site selection committee's recommendations, Prime Minister Indira Gandhi informed the Lok Sabha on Wednesday, report agencies. The committee's reports on the other regions were under consideration, she told Mr Ahmed M. Patel. [Excerpt] [New Delhi PATRIOT in English 19 Jun 80 p 5]

CSO: 5100

BRIEFS

KANUPP STARTS OPERATIONS--Karachi, Aug 2:--The Karachi Nuclear Power Plant (KANUPP), which was lying idle for over one and a half years, was recommissioned on July 27 last by Pakistani experts and has started functioning though on a smaller scale, informed sources disclosed here today. The 137-mega watt capacity plant has been able to produce only 30 megawatt power that, too, with frequent disruption. The plant was closed down a year and seven months back, owing to Canadian Government's refusal to supply necessary material and spare-parts. Prior to its closure it used to supply power to KESC to make up for the power shortage. [Text] [Islamabad THE MUSLIM in English 3 Aug 80 p 1]

CSO: 5100

BRIEFS

ROMANIAN NUCLEAR ENERGY PLANS--Paris, 25 July 80--Romanian head of state Ceausescu, who is making an official visit to France, conferred with President Giscard d'Estaing for the third and last time Friday afternoon. The conversation dealt with questions of mutual relations. Trade and economic cooperation between the two countries was also the subject of the talks held by Ceausescu the day before with Prime Minister Barre and with a delegation from the French employers' association. French business is primarily hoping for participation in the Romanian nuclear energy program. In the next decade Romania will build a dozen nuclear power plants in order to be less dependent on oil deliveries from the Soviet Union. The first few of these power plants are being built by Canada. The French firm of Alsthon Atlantique is competing for the contract to make the turbo generators valued at 2 billion francs but it will have to expect stiff U.S. and Swiss competition. Prime Minister Barre spoke of the French expectations for "extensive, long-term cooperation" in the field of nuclear energy. The main difficulty involved in this and any other economic cooperation with Romania is the effort of this state trading nation not to increase further its foreign debts amounting to 3 billion dollars. [Excerpt] [Frankfurt/Main FRANKFURTER ALLGEMEINE in German 24 Jul 80 p 3] 11,949

CSO: 5100

NATION'S RECENT NUCLEAR MAJOR EVENTS REVIEWED

Buenos Aires LA NACION in Spanish 10 Jul 80 p 8

[Editorial: "National Progress in the Nuclear Field"]

[Text] Two significant events have taken place in Argentina and they are directly related to the problem of nuclear energy. One of them is of a political and diplomatic nature and the other one is tied to the supply of the mineral that generates the above-mentioned energy.

Both of these events are very important in giving [energy] production of nuclear origin the place which it should have to benefit the country. They assert the national determination to maintain autonomy in this field. For the ratification of the Tlatelolco Treaty to be decided by Argentine authorities, it is necessary first of all to note the reservation which is designed to preserve the inalienable rights of a sovereign nation and to guarantee the defense of Argentina's legitimate interests.

Concerning the NPT, which Argentina did not sign--among other countries by the way, France and the PRC did not sign either--we can say that its current version and compliance with its text involve unacceptable privileges for the two superpowers and for some members of the so-called London Club. It was not in vain that high sources, connected with this topic, indicated that this diplomatic instrument, in point of fact, did not attain the objectives proposed to prevent nuclear proliferation in the field of military uses. In the meantime, the commitments which spring from that treaty would hinder Argentina and other countries in the development of the possibilities of achieving effective advances in the application of this type of energy for peaceful purposes.

Upon returning recently from Vienna, Argentina's foreign minister made some very clear statements regarding the situation commented on above. As we know, the capital of Austria is the home of the IAEA with whose general manager he had an interview and who announced that he would soon come to Argentina where he visited last time in 1978.

The accord with Brazil on energy supply is a good tool for harmoniously boosting the economic-social development of both countries in this region through cooperation with West Germany and the use of nuclear fission. This is especially true of the construction of the Atucha II plant and the completion and commissioning of Rio III in whose erection Canadian technology was involved.

The statements made by the CNEA (National Atomic Energy Commission) chairman were quite definite both during the press conference prior to the start of the First Conference of Nonalined Countries, as well as those at the end. The intention to assert an independent attitude also emerged quite clearly on those points on which agreement was achieved in a communique which had been drafted after considerable effort. It is desirable for all countries attending the conference, which was held in the country's capital, to be together regarding the intentions announced and no longer to reiterate certain attitudes. The moves by Libya and Pakistan to build nuclear arms by attending the First Conference do not help in the clear determination of Argentina and countries which are committed to the peaceful use of atomic energy.

The most recent official decision to provide freedom for the prospecting and exploitation of uranium deposits in national territory is a step toward determining--through prospecting--the assets the country has in this respect so that it would no longer be dependent on outside supplies.

Internationally, the various powers have not been absolutely clear in the positions they adopted. On the other hand, it has been possible to sound a warning to the effect that there are very definite pressures on the suppliers of material and technology to the detriment of the developing countries. In particular, one might mention Argentina's case here, although these obstacles did not attain their purpose. On the other hand, advances in technological capacity and in the production of components are quite notable in Argentina and the obstacles placed in a rather selfish and mistaken manner against nuclear autonomy have been removed almost completely or will be removed within a few years. The objective here, it must be repeated, is to be useful both within and without our borders. The previously mentioned agreement with Brazil is a specific example of that.

5058
CSO: 5100

SIERRA PINTADA URANIUM PLANT FACING OBSTACLES

Buenos Aires CLARIN in Spanish 15 Jul 80 p 18

[Excerpts] The construction of the uranium complex at Sierra Pintada, in San Rafael (one of the priority projects under the Argentine nuclear plan) will be delayed due to requirements connected with the mineral price, according to the daily MENDOZA, in its edition of yesterday. Problems reportedly arose with the French company handling the work and the newspaper thinks that, because of that and other circumstances not mentioned, the signing of the agreement on uranium royalties between the government of the state of Mendoza and the National Atomic Energy Commission will again be postponed although this had been expected to take place this month.

The article emphasizes that not even the boundaries of the land area have as yet been determined. The company in charge is a part of the French Pechiney group and the contract permits it to complete the entire engineering project as well as the work required for the preparation and equipment of the mine and the assembly of the plant, starting 30 days after the signing of the contract.

Because of this delay, official spokesmen questioned by the above-mentioned newspaper, commented that "we would be running the risk that this contract might remain ineffective and might be rescinded based on cancellation by either of the parties involved, since that contract for certain reasons is no longer in line with the new aspects of the agreement."

The complaints from the French operating company are tied to the economic announcements made last week by Finance Minister Jose A. Martinez de Hoz which, according to the newspaper, affect the preparations for the installation of the CINA (Applied Nuclear Research Centers), with headquarters in Mendoza, so that it will be necessary to transact important purchases abroad.

These purchases include the nuclear pasteurizers, which are of French origin and which are included in one and the same lot together with the equipment for starting a heavy-water plant of Swiss origin to be installed at Arroyito, province of Neuquen, according to the story printed in the newspaper.

When the agreement was signed on 8 May, it was established that the exploitation of Sierra Pintada, the country's biggest uranium deposit, would start in 1983. The concentration plant will process 700 tons per year.

5058
CSO: 5100

ARGENTINA

CNEA ORGANIZES COURSE ON RADIOISOTOPE METHODOLOGY

Buenos Aires LA PRENSA in Spanish 16 Jul 80 Sec 2 p 8

[Text] The radioisotope and radiation directorate of the CNEA (National Atomic Energy Commission) has organized the first course in the methodology of radioisotopes aimed at radioimmunoanalysis.

The course has been planned for Argentine and foreign professionals who do not have any prior training in radioisotope techniques; it is basically tailored for chemists and biochemists interested in "in vitro" analysis, marking biological compounds, radioimmunoanalysis, etc.

The program to be developed includes an introduction to atomic and nuclear physics, topics in radiation chemistry, molecule marking, radiological protection, immunology, radiation immunoanalysis, to be supplemented with intensive laboratory practice sessions on each of these topics.

The number of students has been fixed at a maximum of 15 specialists, to be selected from among applicants who send in their registration requests and background information prior to this Friday.

Selection will be based on the candidate's real possibility of immediately, preferably in a government institution, using the knowledge acquired. Priority will also be given to those who have not had any prior training in radioisotope techniques.

At the end of the course, there will be a theoretical test and those who pass it will have met one of the requirements set up under current regulations for licensing the individual in the use of "in vitro" radioactive materials.

The tuition fee is 500,000 pesos for specialists belonging to government departments or nonprofit institutions and 1,000,000 pesos for those belonging to other institutions.

Applications should be sent to: Dr Marta Barmasch, Nuclear Biochemistry Division, Biological Applications Department, National Atomic Energy Commission, Avda. del Libertador 8250, 1429, Buenos Aires.

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CSO: 5100

MEXICO

PROBLEMS OF THE NATIONAL NUCLEAR PROGRAM DISCUSSED

Mexico City EXCELSIOR in Spanish 19 Jul 80 pp 1-A, 15-A

[Article By Mario Ruiz Redondo: "Laguna Verde Nuclear Power Plant Not To Be Operational Prior to 1982"]

[Text] Salazar Nuclear Center, Mexico, 18 Jul --Jose Andres Oteyza, secretary of patrimony and industrial development, said today that Mexico would not put up with any pressure from the big powers in nuclear matters but would only accept proposals which are consonant with the country's interests.

In the meantime, Arnulfo Morales, deputy director of energy applications, Nuclear Research Institute, agreed that a United States embargo on Mexican uranium enriched in that country would cause the immediate shutdown of 60% of the activities under this program in Mexico and that the necessary elements could not be replaced through procurement from other nations because they are patented exclusively in the United States.

The SEPAFIN director, who inspected the installations at this nuclear center, also admitted that the Laguna Verde nuclear electric power plant in Veracruz could not go into operation during this 6-year administration term but rather would be operational during the next one since the work is one year behind schedule.

He said that the proven uranium reserves--10,000 tons--are barely enough to meet the requirements at Laguna Verde for 30 years, starting as of the time the plant goes into operation.

Mexico Has No Specific Nuclear Program

Oteyza said that the federal government has not drafted a nuclear program because no agreement has as yet been worked out regarding the system to be used until the year 2000, by using reactors running on enriched or natural uranium. Besides, the real data on the reserves the country has will be of great importance in spelling out this program.

"This is what could hold us back a little bit but the necessary decision will undoubtedly be made and announced within that time frame," he said.

On this point, Francisco Vizcaino Murray, manager of the URAMEX (Mexican Uranium) enterprise, said that the potential uranium reserves in Mexico could amount to as much as 500,000 tons.

He announced that, in accordance with studies conducted, one can be sure that there is uranium in 40% of national territory. That would come to 1.1 million square kilometers, of which the country will prospect a total of 440,000 square kilometers by 30 November 1982.

Medium-Range and Long-Range Programs

On being questioned about Mexico's prospects in nuclear matters, the SEPAFIN director said that work was being done on uranium reserve evaluation and that a study was underway to determine the best technology to be picked for Mexico's nuclear program.

He indicated that specific proposals were received from France, Sweden, and Canada. The first two of these countries are in favor of using reactors running on enriched uranium and Canada wants to use natural uranium.

The official, the highest authority responsible for generating energy in Mexico, noted that the programs which will have to be drafted on this subject will be medium-term and long-term programs.

The next administration, he said, based on the effort we are all going to make here, will enable us to provide definite impetus in this matter. "These are things which cannot be resolved overnight; these are not short-term things. We have to plan them, we have to program them carefully, and, as you know, the full significance of nuclear energy, we feel, will not come out until the end of the century, when we will make the transition from the era of hydrocarbons as the fundamental element in energy toward a new energy era in which nuclear energy will play the central role."

No Enriched Uranium So Far

As for the policy of using nuclear reactors in Mexico, based on enriched uranium, Arnulfo Morales, deputy director of energy applications in the Institute of Nuclear Research, commented that it has so far been negative.

He noted that Mexico made a mistake in picking the nuclear reactor technology that employs enriched uranium because that situation creates greater dependence on foreign countries, which is why the new policy must be based on reactors using natural uranium.

The nuclear expert said that Mexico will be more vulnerable in the future if it drafts its nuclear electric policy on the basis of enriched uranium since plans are already being made for the construction of 20 nuclear electric power plants similar to the one at Laguna Verde which could generate one-fifth of the national output and the risk would be greater in case of an embargo.

He said that the Salazar Research Center, here in the State of Mexico, has a reactor of the experimental type and was working with enriched uranium; in case of an embargo imposed by the United States, activities would be closed down up to an extent of 60%.

Plan Decision Not Political

Oyteza said, in this respect, that the decision to be made by the Mexican Government regarding the definition of its nuclear program will not at any time be political but fundamentally technical. "It will be fundamentally technical. We do not feel that one can speak of politics on this matter. Politics do not intrinsically contain ideology."

He was also asked about the development of research and he commented that work was being done fundamentally in the area of human resources on the scale of experimentation and research centers, such as Salazar, tieing in as much as possible with industrial and agricultural uses and with the country's real economic activities.

As for the future supply of enriched uranium for the Laguna Verde plant, he said that any technology at this point and in this field creates dependence for Mexico.

"What we have been doing precisely in this type of institution is to develop human resources, to enable them to go on absorbing technology coming from abroad and in the future we will thus have technological self-determination in this field; in other words, we want to be able to do the development work ourselves and what we have to import now we want to be able to at least analyze and evaluate," he emphasized.

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NUCLEAR OPTIONS DISCUSSED

Johannesburg SOUTH AFRICAN INSTITUTE OF INTERNATIONAL AFFAIRS in English Jul 80 pp 1-10

[Article by J.E. Spence, professor Leicester University]

[Excerpt] There are real problems about stopping the spread of nuclear weapons. One can understand the super-power reluctance to see nuclear weapons proliferating, particularly into regional conflict, because there is always the danger that if they are allowed to spread freely, super-powers would find themselves dragged in unwillingly to support proxies unable to defend themselves from extinction.

The other difficulty inherent in the stopping of, or slowing down of, the spread of nuclear weapons, is that it is very difficult to put a halt to technological innovation. For example, having reached agreement on one area of weapons systems, and having signed a treaty to limit production and deployment of those weapons, states very often then get involved in a new arms race in some other area, which becomes equally difficult to control. The example was given earlier of the anti-ballistic missile system, where there was agreement because both super-powers realised how destabilizing that development might become to the relationship between them.

We should note, more positively, how over 30 years the Soviets and the United States have developed what one writer has called a "common strategic ideology." While both have been in conflict with each other for many years, there is a sense in which paradoxically they have come to understand each other. Thus arms control and the degree of order provided by nuclear deterrence depends ultimately on the great powers' accepting each other's definition of what constitutes rational behaviour. That is a big assumption, but by and large it seems that in the nuclear field (and its attendant dangers), the super-powers have come to accept a common definition of rationality. In other words, each one knows more or less what constitutes a gain or a benefit for the other side and what constitutes a loss or a cost. This has developed from a long joint historical experience of both conflict and tacit co-operation. Yet if nuclear weapons proliferate indiscriminately, one cannot rely on that common rational appreciation of an opposing states' intentions and capabilities operating to the same degree.

Finally, we should consider South Africa's position in this context. Clearly, any state electing to become a nuclear power has to balance up the incentives to do so versus the constraints that operate against it. It is difficult to see what military utility a nuclear weapon would offer the Republic, since the threat that faces it is not a nuclear one from another state in Africa, nor from the super-powers, but rather a threat of guerilla infiltration and penetration i.e. the threat of insurgency, whether internally or externally-inspired, or through a combination of both internal and external action. It is very doubtful whether nuclear weapons make any kind of sense when dealing with that kind of threat.

There is an argument, of course, advanced by scholars who work in this field that there is some utility in South Africa's developing a tactical nuclear weapon. The argument is that the Republic may one day find itself facing the massed ranks of the OAU's infantry battalions drawn from Nigeria, Congo, points east and west, and that tactical nuclear weapons would be very useful in such a situation. This is unlikely since it is doubtful that the OAU has any strategy of conventional attack against South Africa. That theory was given up a long time ago, for political and logistic reasons.

Of course, when one comes to the question of political incentives and political constraints, one is operating in a rather murky and difficult area, a speculative area. In certain circumstances there may well be a political incentive to acquire a nuclear weapon, even if only for political value. For example, Britain developed nuclear weapons for its political advantages vis-a-vis the United States, rather than for its military strength or significance vis-a-vis the Soviet Union. Similarly, in certain circumstances in the South African context there might be a real political incentive to acquire nuclear weapons. On the other hand, there is a real political constraint: as long as South Africa places faith and hope in its relationship with the Western Governments, and believes that its links with Western Governments matter and are important to it, the constraint against acquiring nuclear weapons publicly by declaring it, as it were, through testing, is very considerable. Because although Western Governments may well be distancing themselves to some degree from South Africa, on the whole they have shown a willingness to continue with trading and investment in a stable situation. They do not want existing stability disturbed by aggressive South African behaviour, and the exploding of a nuclear weapon in the Kalahari or Indian Ocean, followed by a public announcement to that effect would surely disturb the normal relationship which the West wants with South Africa. Therefore, as long as the South African Government values its relationships with Western Governments, including, of course, the trade investment, etc., that flow from that relationship, there does seem to be a constraint against South Africa's acquiring nuclear weapons, because the West would then have to explain why they were trading with a country which was manifesting such an aggressive attitude.

On the other hand if, over the next 5 years, South Africa finds itself becoming increasingly isolated because Western Governments take the view that the only way to encourage change in South Africa is through a process of economic or political disengagement, then the political incentive to acquire nuclear weapons might become stronger, more pressing; in those circumstances a South African Government could plead the cause of isolation in support of a public demonstration of nuclear strength (in the Indian Ocean or the Kalahari) in order to show the world that it is not to be trifled with. But South Africa has not reached the stage where that kind of political strategy has to be adopted. It is true that the government is not a signatory of the Non-Proliferation Treaty. One good reason for their abstention is that its leaders genuinely do worry about having foreign inspecting teams investigating South Africa's nuclear plants. They believe, I think quite wrongly, that inspection would lead to industrial espionage.

On the other hand, it is not reasonable to expect the South African Government to sign the Treaty blind--just because this would be the moral thing to do. Canada and Sweden sign the Treaty happily because that confirms their liberal image as good states in international politics--bridge builders, mediators, nice states in international politics. But if South Africa signed the Treaty, this would not really improve its image; in fact people would be slightly puzzled and astonished that it had done so. It would only make sense for South Africa to sign the Non-Proliferation Treaty if it is likely to get a quid pro quo, something that it values and wants from the West--a resumption of arms sales, recognition of the Transkei, a general softening of hostility of the United Nations and elsewhere. At the moment, however, no Western Government is willing to pay that kind of price, which exposes a very interesting contradiction in Western policy: on the one hand, the West wishes to encourage states not to acquire nuclear weapons--on the other hand, South Africa presents a difficult case because by encouraging it to refrain from becoming a nuclear power, entails giving it something which might engender difficulty for the West in the Third World.

In certain circumstances a public declaration of nuclear status could occur if there was a sudden acceleration in the number of nuclear weapon states over the next 5 years. It is interesting that proliferation in the past has been slow. There have been 30 years of atomic and nuclear weapons, but only five or six states have publicly become nuclear powers. One would expect the rate of proliferation to have been higher and yet that has not occurred. There may be an acceleration in the future simply because some states feel uncertain in a difficult world. Pakistan might now have incentives that it did not have 4 years ago, with the turmoil in Iran and Russians in Afghanistan. In those circumstances states may start declaring themselves to be nuclear as a kind of last form of protection. Now, if there is a sudden surge to become nuclear weapon states, it would not matter whether South Africa was the 11th, 12th or 13th and she would probably not encounter any opposition from the outside world.

At the moment, however, there still is a kind of unwritten norm which says that by going nuclear a state does incur moral opprobrium. And while the norm holds, it acts as a constraint on any policy-maker concerned with deciding whether or not to go nuclear.

South Africa has so far adopted an ambiguous position as to whether or not it has nuclear capacity. I suspect that it is adhering to what is sometimes called a "bomb in the basement" posture, which is what the Israelis do. In other words, a state does not actually say that it has a nuclear weapon, but on the other hand, neither does it deny that it has one. It adopts an ambiguous posture to the outside world; it is a very interesting deterrence posture--what might be called deterrence by uncertainty; it is better than no deterrance posture at all, but it is a very tricky form of deterrence to operate, because it partly depends on bluff and counter-bluff. But it is a form of deterrence in that it causes uncertainty in the opponent who therefore perhaps hedges his bets and does not do what he might otherwise have done if he had been absolutely certain. The problem is, though, that this kind of deterrence by uncertainty posture is really very dangerous: it is bad enough not being able to calculate and opponents' intention, but it really is very difficult indeed if one is not even sure if the other side has such a weapon. Then one cannot be sure about either capabilities or intentions, and that is in some ways the worst position for any state to be in. In other words, the real problem is that there is not the possibility of a common strategic ideology developing between South Africa and her opponents in this respect (assuming that South Africa took the view that nuclear weapons had utility) as there has developed a common strategic ideology between the Soviets and the United States, where there is certainty about capabilities and some rough certainty about intentions, as well. Thus the lack of knowledge about capabilities and intentions makes the future very dangerous and very difficult for all concerned.

C.W.: 1100

DUTCH, BELGIANS OPPOSE FRENCH NUCLEAR PLANS

Amsterdam ELSEVIERS WEEKBLAD in Dutch 12 Jul 80 p 19

> /Text/ In many French eyes the European Community consists of a great and powerful country--France naturally--with somewhat adjacent provinces. Now it is again at odds with Belgium. The French want to set up a series of nuclear power plants close to the Belgian border; on the Meuse from which Belgium gets a great deal of its drinking water. Still the French government regards Belgium as "not having an interest in the matter."

France is one of the EC countries which has no scruples about its neighboring countries, when it involves decisions which can create problems on both sides of the border. Whether it involves agricultural products, wine or nuclear power, Paris does what it wants to and sees later whether the court in Luxembourg reacts to things. Meanwhile this or that interest group is again quieted down for a while and domestic political friction is reduced.

Many examples can be mentioned of the French method of operating. The most recent dispute--and still not settled--is between Belgium and France and involves French plans to build a series of new nuclear power plants near Chooz on the French-Belgian border. They are to produce together more nuclear power than all four of the Belgian nuclear power plants at Tihange, Doel and Chooz. For a Belgium-French nuclear power plant is located at Chooz.

The French plans to proceed with the construction of a gigantic atomic park, 2 kilometers from the Belgian border, came at the time as a complete surprise to the Brussels' government.

Brussels reacted promptly, requesting an explanation from Paris. What were the French really up to and what safety measures would be taken there?

The answer was not long in coming and was extremely negative, in fact even insulting. It amounted to Brussels having absolutely nothing to do with these plans, but the French minister involved was willing to request EDF [French Electric Power Company] to provide further information to the extent it could be given to parties not concerned.

After that French answer, there was some discussion in Brussels, but in view of the Francophile disposition of the average high official and not to forget half of the cabinet, what was first mentioned as the "Chooz scandal" was hushed up.

But a number of opponents of the new French nuclear initiative thought otherwise about it. The construction a year ago of a similar, giant, nuclear center in Grevelingen in northern France, likewise, close to the Belgian border (western corner), was still fresh in their minds. BRAL [The Council for the Environment] in Brussels, the ecology movement "Brussels Inter-environnement" and the "Walloon Action Front" are now critizing the French plans more specifically. At the same time, the latter has been the pacemaker of the actions against French plans at Chooz and it has conducted many a battle about them with the Belgian national police and their French colleagues, who, on orders from on high, have attacked the demonstrators savagely.

One of the most important complaints of the opponents of the new French nuclear power plants is that they are making the Meuse's water more expensive. The Brussels metropolitan area (1.6 million people) gets three-fourths of its drinking water from the Meuse at Tailfer, which is downstream from Chooz.

While the Walloons are somewhat sceptical about eventually concluding water agreements with the Netherlands ("the Dutch let us pay everything"), they now want to eat humble pie with the Dutch to thwart the French plans. They point out the fact that the Netherlands prevented setting up a Belgian nuclear power plant and a petrochemical refinery near Luik and at Ternaaien (5 kilometers from Maastricht) in the early seventies, for the same reasons which they now advance. Moreover, a large part of the big cities in south Holland are dependent on the Meuse for a drinking water supply, so the Walloons argue, and that should give the Dutch every reason to cooperate with them in resisting the French plans.

Meanwhile, Belgian experts have already reported that the realization of the new French nuclear plans actually would be a very heavy burden on the drinking water supply. The Belgian government seems to have realized the seriousness of the situation recently. That does not come from the heart, because precisely in Belgium there has never been any involvement in the cabinet's nuclear power decisions. Belgium already produces 25 percent of its electricity from nuclear power plants, and in spite of many requests for it, parliament has never been allowed to hold a discussion on nuclear power.

The intention of the activist groups is to rouse the governments in Brussels and The Hague and urge measures against France in the EC association. It is a big question whether that will succeed. Belgium itself, as an energy-poor country, has converted to nuclear energy just like France and self-interest plays a big role here.

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BELGIUM, NETHERLANDS NEED TO DISCUSS JOINT NUCLEAR POWER STATION

Brussels DE STANDAARD in Dutch 4 Aug 80 p 2

> [Text] Suykerbruyk, a CVP [Social Christian Party] member of the Lower Chamber, asked Foreign Minister Nothomb a question about the erection of a second nuclear power station at Borssele-Zeeland, "within the Belgian-Dutch border area."

The minister answered that the Dutch government has not yet made a definitive decision on that. Nor has Belgium made any contact with the Netherlands concerning it. The Dutch authorities that have energy and the environment under their jurisdiction have made the decision in principle to increase the energy capacity of the nuclear power plants, Nothomb said, and within that framework it is predictable that the Borssele-Zeeland plant with a capacity of 1,000 megawatts will be enlarged.

At the Benelux level an agreement has been reached by which it is stipulated that decisions on the establishment of nuclear power plants come under national sovereignty, but that each country will stand guarantor for the quality of the environment and for protection of the population of the neighboring state.

As concerns joint consultation on the matter, back in 1979 conversations took place between the Belgian and Dutch ministers who have the environment under their jurisdiction, concerning the problems that the establishment of juclear power plants in the boundary areas entail for both countries. Within the framework of regulation of incidents that extend across the border, the minister of foreign affairs has taken the initiative to regularize the semi-official contacts that the governors of the provinces of East-Flanders, Antwerp, and Limburg already had with their Dutch colleagues, so that agreements will be reached as soon as possible between the Netherlands and Belgium on exchange of information and mutual aid in case of nuclear accidents in the plants at Doel and Mol, as well as on arrangements concerning radioactive wastes. It is obvious, Nothomb said in conclusion, that all planned or existing Dutch installations of nuclear power plants in the boundary zone will come under this regulation.

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FINLAND

NUCLEAR RESEARCH OFFICIAL DEFENDS SOVIET REACTOR SAFETY

Helsinki SUOMEN KUVALEHTI in Finnish 25 Jul 80 pp 34-39

[Article by Antti Blafield: "Nuclear Power Safety Can No Longer Be Increased, Since the Greatest Risk Is Human"]

[Excerpts] "It is not possible to imagine that nuclear power plants can be made essentially more safer with any kind of reasonable expenditures. Small improvements can, of course, be made but on the whole the present situation must be accepted and conclusions must be made as to whether there is reason to use nuclear power and to what extent."

Professor Pekka Silvennoinen, director of the nuclear power laboratory at VTT [State Technical Research Center], is an internationally respected expert. At VTT 200 people have worked on safety factors for nuclear power plants for many years already.

Finland's nuclear power experience is concentrated in five places. The nuclear power plants used by Imatra Power and Teollisuuden [Industrial] Power, the Radiation Safety Institute is their watchdog, the Technical College at Otaniemi studies nuclear physics as a theoretical problem, and the VTT deals with all of them. It makes reports for the company and the Radiation Safety Institute as well as obtains information from the Technical College and from abroad.

Pekka Silvennoinen sits at the crossroads of this information in a white walled sterile office. "We do not take a stand for or against nuclear power. We just make reports, we do not market," he explains his position.

As far as knowledge of nuclear energy is concerned Finland is also at a kind of crossroads. Finland has in its possession as well as in its use the nuclear energy knowledge of both the East and the West. Finland has moved toward nuclear energy at a rapid rate. In 10 years Finland has relatively speaking become one of the largest users of nuclear energy.

At the beginning of winter nuclear energy made up one-fourth of our country's energy management. At its greatest it will increase to more than one-third, estimates Silvennoinen.

The Human Factor

"In the beginning of the 1970's Finland proceeded from the concept of security that preparations should be made for a few serious accidents. The Harrisburg accident a year ago, however, demonstrates that there is reason to question this premise. The Harrisburg accident was the result of several small errors, which accumulated and created a very dangerous situation.

"Harrisburg demonstrated that instead of one large defect we should prepare for the combined effect of innumerable small factors in a nuclear power plant.

"The construction of nuclear power plants is the work of the machine shop industry, which is based on parts made by several subcontractors. Even though an attempt is made to verify all the small streams, errors are still made. The human factor cannot be excluded, not with any kind of money," states Silvennoinen. "No amount of money can make nuclear power plants essentially more safe."

Last year 6,800 risk situations were counted in the United States. "This figure alone indicates that the alternatives and chances of risk are the most varied. Behind each risk situation hides a story, frequently a situation which could have been predicted and thus also taken care of.

In Harrisburg nearly everything else went wrong except the outside protective dome, which held.

"The Accident Which Will Not Happen"

The infamous welded seams at the nuclear power plants at Loviisa have their own connection with the Harrisburg accident. A catastrophe at Harrisburg was prevented by a safety system, the outer layer, which kept radioactive emissions inside.

Loviisa's Soviet sister plants do not have such an emergency cooling system. The Finns demanded this for the Loviisa power plant from the very beginning. If the cooling system of the reactor core, a network of pipes for the coolant fails, the temperature in the pressure vessel will rise, the nuclear reaction continues. This can result in a melt-down of the thermal shield and thus in a serious radioactive emission. The emergency cooling system is built for this possibility. If the pressure vessel's own cooling system fails, the emergency cooling system begins to take over.

Soviet standards for power plants do not take into consideration the violent temperature changes caused by the emergency cooling system. For this reason one cannot be sure that the welded seams will hold. "It is a question of two different philosophies of safety," explains Silvennoinen. "We calculate that such an accident can happen once in a hundred thousand years, the Soviets consider that it will never happen.

"When the decision about the procurement of the power plant at Loviisa was made, we did not have at our disposal all the technical information.

Additional requirements were proposed more on a basis of belief than knowledge. The Harrisburg accident demonstrates that we were right."

Not Near Population Centers

After the Harrisburg accident experts in the United States as well as the Soviet Union have become convinced that nuclear power plants should not be situated next to population centers.

"At VTT we have, for example, calculated the safety risks of a thermal power plant which will possibly be located near the capitol city in Kopparnas. Distance is decisive. When a nuclear power plant is built, preparations must be made for the possible evacuation of people over a radius of 10-40 kilometers. In making such a decision one must understand what such an evacuation could mean, for example, in Helsinki."

On the Soviet side there is a large nuclear power center approximately 60 kilometers from the Finnish border. A thousand-megawatt power plant is in operation at this time in the vicinity of Leningrad. The Soviets are planning to build a 5,000-6,000 megawatt nuclear power center in the area. A power plant of the same size is also being planned for Latvia.

In the event of a serious emission its effects could extend to a distance of approximately 200 kilometers, becoming less serious, however, as it spreads. Those people living at a distance of 200 kilometers would, for example, after a week's time have to pour out milk due to excessive radioactivity.

The Leningrad Power Plant Center is not an exception. For example, in Sweden thereis a nuclear power plant 20 kilometers away from Copenhagen. Also nuclear power plants in the EEC-countries are situated near the borders. It has even been said that when the unification of Western Europe takes place, one will be able to tell where the borders were from the location of the nuclear power plants."

Concrete Slabs from Power Plants

The longevity of a nuclear power plant is approximately 25 years. After that, something has to be done about. "It is already now understood that whatever is done to the power plants, money will be needed. And this money should be collected now."

In Sweden there has recently appeared a report in which the demolition costs of a power plant are estimated to be 0.5 ore per kilowatt hour produced. As far as Loviisa is concerned this could mean 10 million markkas annually or a total of approximately 200 million markkas.

No one yet really knows what will be done with completely exhausted power plants. "The least radioactive portions can, for example, be demolished, the more radioactive portions will have to be buried in the ground and the pressure vessel will have to be covered with concrete. What will be left is several dozen meters of concrete slabs," notes Silvennoinen. "There would be no point in attempting to restore the Loviisa and Olkiluoto areas to their natural condition. They would remain as industrial sites.'

There is no need to begin the demolition immediately after the power plant has gone out of use. The power plant can be allowed "to cool" for 50 years and after that it can be demolished.

Wastes to Be Stored in the Ground

"The spent fuel from nuclear power plants can be stored for perhaps 50 years. After that, highly active wastes must be disposed of."

The Soviet Union is obligated to take back the spent fuel from Loviisa, but questions of expense and responsibility have not yet been resolved.

Nother has yet been done about the fate of spent fuel from the Olkiluoto Plant. There are two alternatives. It can be treated or buried as it is in the ground.

In the treatment of wastes unburned uranium and plutonium will be separated. The remaining, liquid waste, will be glazed. There will soon be treatment plants in England and France. The plant in England offered to treat a portion of the waste from Olkiluoto, but the offer was refused because the amount was so small.

At this point in time there is no reason to do anything about the waste. Inasmuch as the so-called fast reactors operating on treated plutonium remain operational, the plutonium obtained from waste can be sold as fuel for them. Treated plutonium from nuclear bombs is also suitable even though it is of poor quality. Uranium can always be re-used.

However, if the fast reactors turn out to be "Concordes", plutonium will remain unused.

The treatment of waste reduces the risk content of waste buried in the ground by approximately half. "When one talks about small risk probabilities, this is not essential. The decision whether to bury waste in foundation rock or treat it is purely one of economics. It is a question of what is worthwhile. At this time there is reason to act on the assumption that fuel will be buried in the ground. Now we can only wait and see."

Uranium Becoming Depleted

It is estimated that uranium reserves will essentially disappear in the beginning of the next decade, in approximately 50 years. On the basis of current uranium reserves nuclear power will reach its peak in approximately 30 years, after which it will decline evenly so that around the year 2025 the usage level of nuclear power will be approximately at the same level as it will be in the middle of this decade. Only the use of treated plutonium as a fuel can change this development, estimates Silvennoinen. He himself has reservations concerning fast reactors. "They are impressive on paper, but they have not yet been tried on a practical level.

"If fuel cannot be used again, nuclear power will at its peak cover only one-tenth of the world's energy needs." At that time there will be approximately 1,000 1,000-megawatt sized power plants in the world.

At this time there are only two so-called fast reactors using treated fuel in the world: a 250-megawatt power plant in France and a 600-megawatt power plant in the Soviet Union. In addition, there are small experimental reactors in Japan, the United States, and England.

The Cost of Development

"The use of nuclear power presupposes from society an exceptionally high level. All fields and levels of society will become involved in it: water management, agriculture, social administration, public protection, the police system, and provincial and local governments.

"The last 10 years have demonstrated that even Finland has had difficulty in the administration and management of nuclear power. In some developing countries the problems are multiplied. There a nuclear power plant must be isolated from the rest of society. The level of social development in developing countries is not sufficient for the management of nuclear power.

"Nuclear power plants represent a human activity. Human activity requires legislation and supervision and still errors are made. This must be taken into consideration. Society must be prepared to take risks.

"We experts do not recommend nuclear power nor do we talk against it. The final step is taken by the decisionmakers. A decision on nuclear power is more than just party politics. Safety ca-not be resolved by changing the supplier country. There are always good sides and bad sides.

"Production must be weighed against risks or instances of death, incidents of cancer, and genetic disturbances. The political decisionmakers must know what they are deciding. We will gladly present all the information."

Three Years and 96 Risk Situations

The Radiation Safety Institute registers all defects and operational disturbances in Finland's nuclear power plants. At this time they are classified into six classes. The first two classes include incidents which are of importance only to the operation of the power plant. The next two classes include incidents in equipment for which safety requirements have been established. Classes five and six deal with nuclear power plant accidents.

The first unit at Loviisa, which has a capacity of 420 megawatts, was put into operation in 1977, the first unit at Olkiluoto, which has a capacity of 660 megawatts, was put into operation in 1978, the second unit at Olkiluoto, which has a capacity of 660 megawatts, was put into operation in 1979, and the second unit at Loviisa, which has a capacity of 420 megawatts, is now being put into operation.

The Radiation Safety Institute receives information from the power plants with respect to all defects that have occurred in the power plants. The institute supervises the repair of the defects and the operation of the power plants in general. The institute also has the authority to halt the operations of a power plant. The institute is also instrumental in the granting of a license to a power plant.

There is no time limit on the license granted for unit one at Loviisa, but the fuel permit for the power plant extends only until the end of this year. The license for unit two at Loviisa extends until the end of 1983 and the fuel permit is good until the end of this year. The licenses for both power plants at Olkiluoto run out at the end of 1983.

Ninety-six Incidents

Since unit one was put into operation at Loviisa in 1977 a total of 96 "significant incidents with respect to safety" have been observed in the power plant. Of these incidents 16 have resulted in "turning down" the plant or in a curtailment of electric production.

Not one incident has represented a safety risk to the personnel of the plant or the environment, emphasizes the Radiation Safety Institute

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POWER FIRM OFFICIAL: N-PLANTS PLAGUED WITH PROBLEMS

Helsink UUSI SUOMI in Finnish 9 Jul 80 p 3

[Article: "Problems with Nuclear Power; Coal Power and Imported Electicity to Aid"]

[Text] The prolongation of annual maintenance on the Loviisa 1 powerplant and the delay in putting Olkiluoto 2 into operation are causing a 1.5 million mark loss to the power industry daily.

Electricity is being produced mainly by coal-powerplants, the use of which has had to be increased significantly compated to previous summers. Between 10 and 15 percent of the electricity will have to be imported from Sweden and the Soviet Union.

Nuclear powerplants have experienced several problems this summer, as the result of which it has been necessary to rely on more expensive coal for production of electricity.

The annual maintenance of Loviisa 1, which began in May has been prolonged because of welding defects noticed in the boilers. Production can begin again in the middle of August at the earliest.

Operation of Loviisa 2, which has already been loaded with nuclear fuel, is being delayed by inspections, which it has been decided to intensify because of the defects found in plant 1.

Olkiluoto 1 has been out of the network for annual maintenecance since the middle of May. This week the nuclear power plant returned to operation at full capacity.

Operation of Olkiluoto 2, sister plant of Oliluoto 1, will be delayed by several months because of defects noted in the generator rotors. The plant will be added to the national network the beginning of next year at the earliest.

"Murphy's Law Confirmed"

"Murphy's law has been confirmed in nuclear power production. All the difficulties have concentrated at the same point in time," says Pentti Pajunen, head of the office of joint operation for Imatra Power.

The lost energy will be supplied mainly by coal plants at Inko, Naantali, Parainen, and Vaskiluoto.

"Now in June and July, the load has been 80 percent of capacity. Normally we have hardly needed to use coal power in the summer at all," says Pajunen. Between 10 and 15 percent of the electricity will be imported from abroad just as was done a few years ago, before Loviisa 1 was placed in operation.

Electricity from the Soviet Union will come in a single block along the 400-kilovolt line that was completed in June. The electricity purchased from the Soviet Union accounts for a 5 percent share of electricity needs at this moment.

Little Hydroelectric Power

Because of the summer drought, little hydroelectric power is available for use.

"In spite of the record dryness of the summer, we have still had to use some hydroelectric power. Water reserves are now below average, but we are not yet near the limits where rationing would begin," says Pajunen.

Needs of industry have increased the pressure: in earlier years many factories were closed down, but according to Pajunen industry is now spinning at full capacity even in July.

"The need for energy at this moment is about 4000 megawatts or 10 percent greater than last summer.

"If the shut-down of Loviisa 1 continues into August and September, we will have to use more expensive plants than before and to use coal plants at full capacity."

Oil May Be Needed Too

At that point we would have to rely also on steam plants using oil, the energy production costs of which are twice as much as the corresponding expenses for coal plants.

Energy Reserves Can Be Found, But at High Cost

"The shut-down of Loviisa 1 is costing IVO [Imatra Power Company] about 0.5 million marks a day, and the loss to TVO [expansion unknown] caused by the delay at Olkiluoto 2 is on the order of 1 million marks," Pajunen estimates.

With increasing use of nuclear power, we will also have to increase the number of reserve power units. Sources of energy are needed for the times when the nuclear plants are not running for some reason.

For More Precise Studies

"If very large nuclear power units are built, we will have to build a lot of reserve power. If production of nuclear power is divided into smaller units, the need for reserve power is not so great," Pajunen notes.

In order to insure reserve power, in Pajunen's opinion, Scandinavian powe cooperation should be improved. The least expensive reserve power units according to present estimates are gas turbine powerplants. They are cheap to build, but expensive to run because of their fuel, light oil.

The high cost of nuclear powerplant shut-downs is leading to more careful planning of nuclear powerplants than previously, according to Pajunen.

"For example, the quality of work on new powerplants must be inspected in greater detail than before, so that we will not have to have expensive repairs later."

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NETHERLANDS

MINISTER GINJAAR COUNSELS PRUDENT APPROACH TO NUCLEAR PROBLEM

Rotterdam NRC HANDELSBLAD in Dutch 21 Jul 80 p 7

[Report on interview with Minister of Public Health and Environment Leendert Ginjaar by Peter van Dijk and Kees van der Meulen: "Coal or Uranium, Ginjaar's Dilemma]

[Text] Thursday last week the government presented part three of its energy memorandum. In two volumes, about 900 pages thick, the Van Agt government gave our society compulsory homework for national public discussion on the production of energy, the so-called broad social discussion.

The third memorandum deals officially with the choice of fuel for power stations, our preference for coal or uranium. For quite some time, however, there has been a public discussion of the narrower choice: for or against nuclear energy.

To start off the national discussion of the next 2 years the government presents as its temporary viewpoint that the construction of three new nuclear power plants is acceptable provided adequate storage for nuclear waste is found. For reasons of convenience possible construction sites are mentioned: Borssele and the North East Polder.

This choice exposed the government to predictable yet very heavy criticism ranging from "unacceptable" (parliamentary opposition) via "frivolous" (environmental organizations) to "in violation of the agreement to govern" (government party CDA).

Of the 16 ministers who accept responsibility for the energy memorandum Dr L. Ginjaar (public health/environmental hygiene, VVD) is in the most delicate position.

As "minister of the environment" he is in the first place responsible for the welfare of the population and the environment: He is most directly confronted by the negative effects of a choice for nuclear power (public fear of a catastrophe) and the risks of storage of wastes, or for coal (pollution) but as only one out of 16 ministers he can control the direction energy production will take to a limited degree only.

In this difficult position Ginjaar's own opinion on nuclear power is guarded and he must deal with powerful advocates of nuclear power in the cabinet, namely Prime Minister Van Agt and Minister of Economic Affairs Van Ardenne.

Here follows a discussion with a minister who is a technician and does not consider himself a politician, who avoids sharp pronouncements and who formulates statements thoughtfully but calls nuclear energy a problem "bigger than any other" and thinks that, with a view to the social discussions, the political parties should behave prudently.

Coal or uranium? In a long conversation at the dining room table we present the dilemma in various ways to Dr L. Ginjaar, minister of public health and environmental hygiene.

His deliberate reply amounts to the following: "No to nuclear energy does not mean yes for coal. Every method of energy production is bad for the public health. The best energy policy, this cannot be stressed adequately, is conservation.

Ginjaar's dilemma as protector of mental and physical health is: pollution from coal in the air and on the earth or the production of radioactive waste from nuclear power plants.

The minister has already expressed his agreement with the memorandum on coal, the second part of the energy memorandum. "People seem to forget that I have also signed that document. "He agrees therefore with burning 25 million tons of coal, or an amount equal to 40 percent of our national production of electricity.

Ginjaar says: "Take note, it means that every day 600 trucks loaded with coal must pull up to allow a power station to deliver 600 Megawatts."

About a possible option to use even more coal, filling the air with even more carbon monoxide and sulfur dioxide, he says: "That would be very tough for the public health and the environment."

Are you therefore in favor of uranium?

"It would not be a problem if I were 100-percent convinced that nuclear energy is without danger. It would not be a problem for anybody. Nothing is completely without its dangers. This also true for coal. As regards waste products I have stated that the choice between uranium and coal is like a choice between apples and pears. I cannot fully predict what the long-term consequences will be for public health and environment of all the material released during the burning of coal. With only waste products in mind I can say though that the coal waste is more manageable than nuclear waste."

The memorandum says that there is a practical solution for waste products, namely storage in salt domes.

"No, that is not exactly so. It says that there is a method for a solution. The salt domes must first be explored.

With exceptional vehemence about the Second Chamber's refusal to allow test explorations, he goes on to say: "It makes me somewhat sad that they do not want to trust a minister of public health and environmental hygiene. When I say that I will issue a license for test drillings only I mean that and I will not secretly permit dumping of waste products."

The criticism of storage in salt domes is that you actually do not investigate how these domes will react if waste is actually dumped inside them, and how stable and strong they will stay at such high temperatures.

Well that would certainly be a part of the tests. If we get permission we also intend to imitate such dumping. I also follow with great interest the drillings in Gorleben in Germany. Indeed, the results do not appear to be good, faults and water penetration have been mentioned. If I learn that, I will definitely reconsider my decision because it is necessary that a solution be found which once and for all prevents the wastes from coming into contact with the biosphere.

I do not believe in shooting waste into the stratosphere as it cannot be retrieved. What remains is storage on land or at the bottom of the ocean. I find storage on land only a temporary solution.

The safety of the reactor. The memorandum stresses the technical aspects of risks and it even states: "In assessing the social acceptability due consideration must be given to aspects of irrational sensitivity, such as possible fears and tensions, even though they may not be accepted as decisive."

Ginjaar: "I regret that the last part of the sentence behind the comma was not deleted. Imagining a possible risk is of course very important and part of our health policies. It should not have been written that these aspects may not be decisive."

With the risks for the population in mind how will you now decide about the location of power stations?

"In all honesty I find the choice of locations difficult. It is really questionable whether a suitable location can be found in The Netherlands. Take a small village like Creil in the North East Polder, should we choose it or shouldn't we? Amsterdam, that is clear, a power station on the Dam would not be feasible. I believe that I will only agree if I am 100-percent convinced that there is no danger; I will then say that it must be done."

After what you have been telling us, how can you put your signature under a memorandum that reads: we must build three additional nuclear power stations before the year 2000.

Ginjaar: "It does not say that. Nowhere are we saying that after the discussion of social aspects we will build nuclear power plants in 1983. If the discussion turns out to be in favor of nuclear power it may very well be that we will decide in 1983 to build in 1985 or even later. It should remain possible to revoke the decision in the meantime. That is all possible."

Is that also based on your knowledge of forecasts of the growth of our energy needs and economic development?

"Yes, in the scenario I read more about slow economic growth (of 1.9 percent). But the memorandum is not static. In a few years the figures must be reconsidered and our policies readjusted. In about a year we can see what has to be done on the basis of estimates of our energy needs; development of alternative energy may be very promising; maybe, but at this time I do not know that; however I prefer it to coal."

What was the role of the minister of public health and environmental hygiene in composing the memorandum?

Ginjaar is noticeably reticent in his answer, he evades sharp questions but denies that some of his proposals were not accepted. "The story that I came towards the end with a package of proposals for a change in 40 pages is really not true."

Did environmental interests play second fiddle to economic and international/political interests?

Ginjaar says nothing, for quite some time the secret of the Catshuis remains suspended in the air above the conference table. In the end he said: "It was not specifically brought up during this phase. I will say no more. If Prime Minister Van Agt were here, he would have said that we are all behind the policies we adopted."

Is he not surprised about the negative political reactions?

Ginjaar's reaction is unusually sharp, he retracts it immediately and states: "Pending the discussion of social aspects the political parties will have to be very prudent with their opinions. That is all I can say."

Do you find the social discussion really useful?

"I find the energy problem larger than any other. It is therefore very important that the people become energy conscious. This means that people should realize that our energy sources are not inexhaustible. That we consume in a few years fossil fuel which took nature millions of years to produce. That we must search for other energy sources and learn to be thrifty in the meantime."

In the second place I hope that Parliament's end decision will be unanimous.

You mean to say that if the chairman asks for those in favor of nuclear energy to rise, 150 chamber members will get up in unison.

Ginjaar: "Indeed, the same goes for a vote against nuclear power."

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GOVERNMENT PLANS CONSTRUCTION OF THREE NUCLEAR POWER STATIONS

Rotterdam NRC HANDELSBLAD in Dutch 17 Jul 80 p 1

> [Text] To meet energy needs to the year 2000 the Dutch government wants three more nuclear power stations. Two stations are to be built next to each other near the western dike of the North East Polder and one near the existing station at Borssele. It would increase the capacity of Dutch nuclear energy six fold.

The government stands by its decision to store the waste of these stations in salt domes in the north of the country. It regrets the Second Chamber's decision to delay experimental drilling until the broad social aspect discussions are finished.

The Van Agt cabinet wrote this today to the Second Chamber in its third Memorandum on Energy Management. The memo is signed by the ministers of economic affiars, public health and environmental hygiene, social affairs and public housing, and environmental management. Part one of the memo concerns overall management and part two concerns coal.

With its preference for construction of three nuclear power stations the government is in accordance with the Den Uyl government's declaration of principle of 1974.

The Dutch government lets the actual construction of the three stations depend on the "broad" social aspect discussion which begins this fall with a period of information and advice. In its memo the cabinet finds it useful to present its own preferences and opinions right at the beginning of the discussions.

The government goes into details in explaining its preference for nuclear energy over other forms of energy.

The memo comes to the conclusion that intensified use of coal instead of nuclear energy is possible only if extensive measures to protect the environment are taken. The five ministers write that nuclear energy is cleaner. Moreover, the selection of coal is unwise because it would make our country just as dependent on suppliers as is now the case with oil. The government states that price increases, which will undoubtedly continue in the years to come, will affect energy prices less with the use of nuclear power than with coal; this is important for the balance of trade and therefore also for the employment situation.

The government does not believe that protection of the stations against, for example, terrorists will endanger our constitutional rights.

It also argues that countries with the desire to develop nuclear arms will obtain the knowhow in the long run anyway. It cannot find an argument against construction of nuclear power plants in the nonproliferation discussion.

In conclusion the government believes that storage in rock salt formations in the North Sea or the north of the country is a responsible solution of the waste problem. Radioactive waste will then be contained in specially prepared glass. The government regrets therefore the Second Chamber's decision, which prevents it at this time from investigating through experimental drilling tests what formations are most suitable for storage.

The government calls the safety of nuclear power stations a real problem but it writes: "There is no industrial process without risks for the population."

On the eve of the social discussions the government believes that, taking everything into consideration, nuclear power is the best choice to cover our continuously growing energy needs. The government ends with an urgent appeal to participate in good conscience in the discussions about a problem of great importance for our society for the present and the future.

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